

## 2.0 Environmental and Cultural Overview

Human adaptation in what we now know as South Carolina has changed through time as both the natural and cultural settings have changed. While the physical environment provides humans with the materials necessary for maintaining life, the combination of physical and cultural events with processes presents limitations and/or opportunities for exploitation and adaptation to any given region. This chapter presents a brief overview of the natural and cultural setting in the project area.

### 2.1 Environmental Overview

The project corridor is located just south of the Fall Line, in the interface between the Coastal Plain and the Piedmont. This area is known as the Sandhills district of the Southern Coastal Plain physiographic province. The south end of the project corridor is located in the middle portion of the Savannah River Valley, a major watershed that slopes from more than 1,524 m in the Appalachians to sea level at the Atlantic. The north end of the corridor is drained by branches of the South Fork Edisto River. The environmental overview presented here highlights the nature, regional geology, soils, climate, and ecosystems of the project area.

#### 2.1.1 Physiography and Topography

The primary drainage for the south half of the project corridor is the Savannah River via Town Creek, which is located 300 m north of the southern terminus of the project corridor. Town Creek meanders 6.5 km southeast where it joins with Hollow Creek. From this confluence, Hollow Creek flows an additional 8 km southeast into the Savannah River. The corridor also crosses Hollow Creek 9.5 km north along the transmission corridor from the southern end.

The Savannah River begins in the Blue Ridge of southwestern North Carolina and flows southeast for more than 503.7 km, forming the boundary between South Carolina and Georgia, before it empties into the Atlantic Ocean. The Savannah River Basin encompasses more than 27,114.6 square kilometers divided into nine separate hydrologic units. The primary tributaries of the Savannah River include the Seneca River, Tugaloo River, Broad River, Little River, Stevens Creek, and Brier Creek. In past times, the upper section of the Savannah River flowed swiftly through the rolling hills of the Piedmont to the shoals at the Fall Line. South of the shoals, the flatter terrain broadened the river and created a series of wide terraces bordered by back channels, meanders, and oxbow swamps. On the Coastal Plain, the wetlands and natural levees are occasionally interrupted by limestone outcrops, such as Silver Bluff. Tidal action begins to have an influence on the river as much as 45.1 km upstream from the ocean, where it starts to form a complex deltaic estuary (Segovia 1985).

The Edisto River begins under the Sandhills from springs in Saluda and Edgefield counties and flows over 402.3 km southeast to the Atlantic Ocean. It consists of two major tributaries, the North Fork and South Fork which join before reaching the coast. The Edisto River is one of the longest free-flowing blackwater rivers in the Southeast. A blackwater river derives its name from the dark coloration of the waters caused by decaying vegetation along the banks. Swift Creek is a tributary of the South Fork Edisto River that crosses the northern half of the transmission corridor and drains the surrounding area (Friends of the Edisto [FRED] 2019).

The project corridor passes through the rolling hills of the Upper Coastal Plain. The corridor contains agricultural and wooded areas, as well as areas that have been developed in recent years for residential and

recreational purposes, like horse riding. Figure 2.1 presents a typical view of the gently rolling hills common along the corridor.



Figure 2.1 Topography within the corridor showing rolling hills, facing northeast.

### 2.1.2 Soils

Soil characteristics can reflect optimal locations for past human settlement, given factors such as drainage and slope. Areas that are level and dry, for example, are much more likely to have been utilized in either the prehistoric or historic eras as camps, farmsteads, or other long-term settlements. Surface sediments in the project area vary greatly, though most eroded sections of the corridor feature exposed clays and most upland areas contain pockets of deep sand. The Vacluse-Ailey complex has been mapped on many of the project corridor's steeper slopes (United States Department of Agriculture [USDA] 2019). These are well-drained soils that form on marine terraces and can range from 2 to 25 percent slopes (Rogers 1985). A typical soil profile contains loamy sand from the surface to about 25 cm, over sandy clay loam that extends well below a meter. Given that the corridor was first cleared decades ago, and that it has been constantly maintained since that time, soils on the steeper slopes have become drastically eroded. In areas mapped with Vacluse-Ailey complex soils, Brockington archaeologists usually encountered dense, compact clays near or at the surface.

Several areas of the corridor that are less sloped and are therefore notable because they are usually less eroded, have been mapped with the Fuquay Series of soils (USDA 2019). Soils within this series form on broad ridges and adjoining side slopes and are well drained (Rogers 1985). A typical soil profile contains sand from the surface to about 20 cm below surface, over loamy sand to about 54 cm below surface, before

encountering sandy clay loam subsoil (Rogers 1985). Most of the deepest and intact soil profiles recorded are within pockets of Fuquay Series or similar soils, like Troup Series. Figure 2.2 presents a typical view of an eroded portion of the corridor, near the southwestern end of the project. Table 2.1 shows the soil types present within the project corridor.



Figure 2.2 Erosion along the south end of transmission corridor, facing southwest.

### 2.1.3 Climate

The Middle Savannah Region falls within a warm, temperate subtropical climatic zone, with long, hot summers and short, cool winters. The typical daily January temperature in Aiken County, South Carolina, is a maximum of about 55°F, with a minimum of around 33°F, and averages close to 47°F. The typical daily July temperature is a maximum of 90°F, with a minimum of about 70°F, and averages around 80°F. The region usually has more than 240 frost-free days per year, with fewer than 60 days per year of temperatures below 32°F. The first frost typically occurs after mid-November, while the last frost usually takes place after March (Hodler and Schretter 1986:38-43; Rogers 1985:1-2, 94-95).

Modern average total annual rainfall in Aiken County is approximately 120 cm. Even though monthly precipitation tends to peak in summer and/or spring, the Sandhills may experience a net water deficit between the months of May and October in a typical year. This is generally through agricultural use of the available surface water (Hodler and Schretter 1986:42).



**Table 2.1** Distribution of recorded soils within the project tract.

Soil Type	Drainage Class	Landform	Typical Profile	Acres	Percent in Tract
Ailey sand	Well-drained	Marine terraces	Sand over sandy clay loam	3.4	1
Bibb loamy sand	Poorly drained	Flood plains	Loamy sand over sandy loam, loamy sand, and sandy loam	2.9	0.9
Dothan loamy sand	Well-drained	Marine terraces, interfluves	Loamy sand over sandy clay loam	19.5	5.9
Faceville sandy loam	Well-drained	Marine terraces	Sandy loam over clay	45.9	13.9
Fuquay sand	Well-drained	Marine terraces, interfluves	Sand over loamy sand and sandy clay loam	30.3	9.2
Johnston mucky loam	Very poorly drained	Flood plains	Mucky loam over loamy sand and sandy loam	6.5	2.0
Lakeland sand	Excessively drained	Dunes	Sand over sand	0.8	0.2
Marlboro loamy sand	Well-drained	Marine terraces	Loamy sand over sandy clay	2.4	0.7
Ochlocknee sandy loam	Well-drained	Flood plains	Sandy loam over loamy sand	7.3	2.2
Orangeburg loamy sand	Well-drained	Marine terraces	Loamy sand over sandy clay loam	3.4	1.1
Troup sand	Somewhat excessively drained	Marine terraces	Sand over sandy clay loam	91.3	27.7
Vaughan-Ailey complex	Well-drained	Marine terraces	Loamy sand over sandy clay loam	112.8	34.2
Vaughan-Udorthents complex	Well-drained	Marine terraces	Loamy sand over sandy clay loam	1.0	0.3
Water				0.3	0.1
Williman sand	Poorly drained	Marine terraces, depressions	Sand over sandy clay loam and loamy sand	1.8	0.5

#### 2.1.4 Paleoenvironment

Profound changes in climate and dependent biophysical aspects of the environment over the last 20,000 years have been documented in the Southern Piedmont and Northern Coastal Plain. Major changes include a general warming trend, melting of the large ice sheets of the Wisconsin glaciation, and an associated rise in sea level. With an increase of as much as 100 m, the change in sea level was dramatic along the Atlantic coast (Brooks et al. 1979). Approximately 12,000 years ago, (the time of the first documented presence of human groups in the region), the ocean was located approximately 80 to 161 km east of its present position.

During the last 5,000 years, there has apparently been a 400 to 500-year cycle of sea level fluctuations of about two m (Brooks et al. 1979; Colquhoun et al. 1981).

The general warming trend that led to melting of glacial ice and a rise in sea level also greatly affected vegetation communities in the southeast. During the late Wisconsin glacial period and until about 12,000 years ago, boreal forest dominated by pine and spruce covered most of the southeast. Approximately 10,000 years ago, a modern, somewhat xeric forest developed and covered much of the southeastern United States (Kuchler 1964; Wharton 1978). As the climate continued to warm, increased moisture augmented the northward advance of the oak-hickory forest (Delcourt 1979). In a study by Sheehan et al. (1985), palynological evidence suggests that spruce, pine, fir, and hemlock rapidly decreased in growth between 9,000 and 4,000 years ago.

During the mid-Holocene, much of the world experienced a general warming trend referred to as the Hypsithermal or Altithermal. In some parts of the world, warmer temperatures were accompanied by increased precipitation, while other parts of the world, such as the Great Plains, experienced drier than present conditions. Current research suggests that the southeastern United States experienced a more monsoonal climate, with highly seasonal precipitation patterns. The oak-hickory to southern pine forests of the coastal Plain were replaced with a dominant southern pine vegetative cover, a condition that remained intact through the rest of prehistory (Delcourt and Delcourt 1979; Wharton 1978:12).

The Savannah River Valley has undergone a great deal of complex tectonic alteration since the formation of the Appalachians, some 500 million years ago. Built largely on folded, upturned, and metamorphosed rocks, the rolling hills and narrow stream valleys of the Piedmont extend southeastward from the higher Blue Ridge and terminate abruptly at the Fall Line, where they dive under the later sedimentation of the Coastal Plain. Magma, extruded through the underlying mantle, has shaped those hills and valleys. It has also contributed to the diversity of surface minerals by creating dikes and expanses of granitic and metavolcanic rocks. Surface geology in the Piedmont is typically masked by saprolite, a layer of decomposed rock consisting of clay-sized iron oxides, aluminum, quartz, and silica minerals (Hodler and Shretter 1986:36).

In contrast, the Coastal Plain has a distinctly maritime origin. Between 135 million to 11,000 years ago, sea level changes built a succession of barrier islands extending from the Fall Line to the modern coast of South Carolina and Georgia. The area nearest the Piedmont shows the most dynamic environment with the deposition of a belt of deep sands (the Sandhills) eroded from the Piedmont edge. Much of the remainder of the Coastal Plain was built up through marine settling of clay and silty sands. Vast deposits of limestone were created around 25 million years ago across the Florida, Georgia, South Carolina, and Alabama Coastal Plains. The Floridan aquifer developed in conjunction with this limestone deposition, and this aquifer remains a significant source of fresh water even today (Hodler and Shretter 1986:32-33). Surface sediments are widely variable given that the flat topography tends toward marshy expanses between very low, broad interfluvial ridges (Hodler and Shretter 1986:17).

The alluvial deposits of the Savannah date back at least 150,000 years to the Early Pleistocene (Segovia 1985:16). After periods of downcutting and stability through the Pleistocene, the transition to the Holocene (around 12,000 years ago) witnessed a river that probably fluctuated drastically seasonally. The floodplain above the Fall Line was unstable, with steep scarps and rapid colluviation (Segovia 1985:21). From 10,000 to 7,000 years Before the Present (BP), there appears to have been "sedimentary pulsing" or deposition of fine to medium-grained sands, during periods of deforestation, presumably resulting from climatic change

(Segovia 1985:22). Around 3,600 BP the river became fairly stable up through the historic period (circa 300 BP), reflecting a slow deposition rate of around one centimeter (cm) per 100 years (Segovia 1985:26).

### 2.1.5 Floral and Faunal Habitats

From 4,000 years BP to the present, slight cooling and limited increases in precipitation may have been responsible for subtle changes in lowland vegetation. The upland vegetation of the Southeast was characterized by a thinning of the deciduous forests (Delcourt and Delcourt 1979). The oak-hickory forests appear to have decreased in area and density and were slowly invaded or replaced by several conifer varieties. Hickory and gums were generally less prominent, with alder and ragweed increasing in representation in the palynological record (Delcourt 1979; Sheehan et al. 1985). Forest thinning was likely derived from an increase in human-related land use (i.e., timbering, farming). Similarly, the importance and overall increase in pine species in the forests during this time would have depended on several factors, including fire, land clearing, and soil erosion (Plummer 1975; Sheldon 1983). Since that time, the general climatic trend in the Southeast has been toward slightly cooler and moister conditions. As a result, the present southern mixed hardwood forest as defined by Quarterman and Keever (1962) was established. Early European explorers reported large pure stands of yellow (longleaf) pine in the Coastal Plain. Recently, these stands have been replaced by slash pines (*Pinus elliottii*), particularly in low lying areas where planted slash pine dominates nearly 90 percent of the Pleistocene pine flatwoods (Wharton 1989: 195).

The Savannah River Valley today (excluding farmland) includes six primary forested habitats. These include over four million acres of loblolly-shortleaf pine, more than one million acres of oak-pine, 545,000+ acres of longleaf-slash pine, 533,000+ acres of oak-hickory, 516,000+ acres of oak-gum-cypress, and about 11,000 acres of live-oak forest or coastal marsh. Much of the region is managed plantation pine or other timber products and, therefore, subclimax forest. Modern forest types do not directly equate with these habitats, especially in the Pre-Contact period. Plummer (1975) provides more substantial insight into the forested habitat of the eighteenth century in the region, while Bartram (1791) describes a sample of plant species and habitats of the lower Savannah River Valley from his 1773 travels. These sources suggest a continuity of oak-gum-cypress species and habitats on the floodplains and in the marshes between the 1700s and today, but a transition of upland areas from oak-hickory and oak-pine to greatly increased loblolly-shortleaf pine, dominated the managed habitat.

Notably, a large segment of the corridor is currently used by private residential developments/equine-focused communities for horse-jumping, dressage, and trail riding. The grass is kept short for these activities, and multiple ponds have been added for the jumps. Horses are a common sight in these areas.

## 2.2 Cultural Overview

As it is presently understood, human occupation and its associated cultural environment spans at least 12,000 years in the Southeast. This 12,000-year span is divided into several developmental stages. Each stage is characterized by its own settlement patterns, subsistence strategies, technology, and diagnostic artifacts and is divided into distinctive, temporal periods. Remnants of these temporal periods are left in the form of archaeological deposits. A brief discussion of the cultural history of the region is presented below.

### 2.2.1 The Pre-Contact Era

The prehistoric occupation of the southeastern United States can be described best in terms of changes in fundamental social systemics. During much of the past, prehistoric cultures maintained a lifestyle that

focused on the acquisition of locally available wild resources (hunting and gathering). The extant food and other basic resource procurement technology of the earliest eras favored small, mobile social groups that practiced migratory, or nomadic, lifestyles. During times of economic stress, secondary resources could be relied upon, along with increased mobilization and trade with neighboring groups, in order to supplement the diet.

Archaeologists tend to refer to cultural divisions by the manner in which prehistoric people acquired food and maintained social relationships. Further divisions are based on spatial distributions of ceramic or lithic artifact types. The cultural periods most associated with an intensive hunter-gatherer lifestyle are the Paleoindian (13,000 to 10,000 BP) and the Archaic (10,000 to 8,000 BP). These periods are further subdivided into categories based on the particular resource procurement strategies, their inter-group relations, and the projectile point typologies that have been developed through the years.

Increased sedentism was probably a factor leading to higher rates of reproductive fertility and subsequent population increases. Through increased sedentism and larger populations, in conjunction with strong political organization and trade relationships, social diversity eventually increased. Evidence of differential access to exotic trade goods and the social demands of craft specialization are ways in which the archaeological record reveals the development of social diversity. A system evolved in which more complex societies participated in regional interaction and developed centers of political influence (Anderson 1994; Barker and Pauketat 1992; Marshall 1987; Muller 1997; Rogers and Smith 1995). In the Southeast, the periods in which these characteristics developed and reached their greatest degree of complexity are usually identified as the Woodland (2,500 to 1,000 BP) and the Mississippian (1,000 to 450 BP). Each period is subdivided further based on particular pottery typologies and the presence/absence of public or symbolic architecture, usually identified as Early, Middle, or Late subperiods.

In South Carolina, the Pre-Contact era is divided into four stages (Wiley and Phillips 1958). These include the Lithic, Archaic, Woodland, and Mississippian. Specific technologies and strategies for procuring resources define each of these stages, with approximate temporal limits also in place. Within each stage, with the exception of the Lithic stage, there are temporal periods that are defined on technological bases as well. A brief description of each stage follows, including discussions of the temporal periods within each stage. Readers are directed to Goodyear and Hanson (1989) for more detailed discussions of particular aspects of these stages and periods in South Carolina.

### *The Lithic Stage*

***Pre-Clovis Period (13,000+ BP).*** The beginning of the human occupation of North America is unclear. For most of the twentieth century, archaeologists believed that humans arrived on the continent near the end of the last Pleistocene glaciation, termed the Wisconsinan in North America, a few centuries prior to 12,000 BP. The distinctive fluted projectile points and blade tool technology of the Paleoindians (described below) occurs throughout North America by this time.

During the last few decades of the twentieth century, researchers began to encounter artifacts and deposits that predate the Paleoindian period at several sites in North and South America. To date, these sites are few in number. The most notable are Meadowcroft Rock Shelter in Pennsylvania (Adovasio et al. 1990; Carlisle and Adovasio 1982), Monte Verde in Chile (Dillehay 1989, 1997; Meltzer et al. 1997), Cactus Hill in Virginia (McAvoy and McAvoy 1997), and most recently, the Topper/Big Pine Tree site in Allendale County, South Carolina (Goodyear 1999). All of these sites contain artifacts in stratigraphic locales below Paleoindian deposits. Radiocarbon dates indicate occupations at the Meadowcroft and Topper/Big Pine

Tree sites that are 10,000 to 20,000 years earlier than the earliest Paleoindian occupations. Cactus Hill produced evidence of a blade technology that predates Paleoindian sites by 2,000 to 3,000 years.

Monte Verde produced radiocarbon dates comparable to those at North and South American Paleoindian sites but reflects a very different lithic technology than that evidenced at Paleoindian sites. Similarly, the lithic artifacts associated with the other pre-Paleoindian deposits discovered to date do not display the blade technology so evident during the succeeding period. Unfortunately, the numbers of artifacts recovered from these sites are too small at present to determine if they reflect a single technology or multiple approaches to lithic tool manufacture. Additional research at these and other sites will be necessary to determine how they relate to the better-known sites of the succeeding Paleoindian period, and how these early sites reflect the peopling of North America and the New World.

***Paleoindian Period (13,000 to 10,000 BP).*** The Paleoindian period, the earliest securely dated and documented period of human occupation in the New World, corresponds with the terminal Pleistocene, when the climate was generally much colder than today, and when sea levels were over 60 m below present levels. Another notable feature of the terminal Pleistocene was the presence of large mammalian species (i.e., megafauna).

The pattern of human adaptation for this period has been reconstructed from data from other areas of the country and from distributional data on the diagnostic fluted projectile points (e.g., Clovis, Hardaway, Dalton) within the Southeast. Very few Paleoindian sites have been excavated in the Southeast, and only relatively recently have South Carolina sites received attention (Goodyear et al. 1989). However, the data from surface finds of Paleoindian points seem to indicate that cultures of this period were focused along major river drainages, especially in terrace locations (Anderson and Logan 1981; Goodyear 1979; Michie 1977). Similarly, Anderson et al. (1990:39-40) suggest an emphasis on floodplain locales in the Oconee River valley of Georgia, with a shift to an increased use of upland areas through time. Work in the Oconee Valley by O'Steen et al. (1986) also demonstrated the presence of specific Paleoindian site types associated with particular settings within the valley.

If the pattern from other areas of the country holds true in South Carolina, then the adaptation was one of broad-range, high-mobility hunting and gathering with a possible focus on megafauna exploitation (Gardner 1974). Evidence to suggest a more generalized approach, with small game and plant foods providing the bulk of Paleoindian subsistence, also has been collected for the eastern United States (Meltzer 1988; Meltzer and Smith 1986); the limited association of megafaunal remains with cultural artifacts in the Southeast may support this contention.

The material culture of the Paleoindian period is dominated by fluted or semi-fluted projectile points, most commonly produced on high-quality cryptocrystalline material. Although fluted points have been found in surface contexts across the South Carolina Piedmont, the Paleoindian (i.e., Clovis) period is relatively poorly represented (Goodyear et al. 1989).

Artifacts and sites of a Transitional period (12,000 to 9,500 BP) are much more common in the region. It should be noted that there is disagreement regarding the placement of the Hardaway and Palmer phases, with the Palmer phase sometimes placed in the Paleoindian period (e.g., Claggett and Cable 1982; Purrington 1983; Ward 1983). The Hardaway complex includes semi-fluted, side-notched projectile points and a wide variety of formal scrapers (Coe 1964). It is best known from the Hardaway (type) site in Stanly County, North Carolina (Coe 1964), but other excavations have also yielded Hardaway and Hardaway-



Dalton material (e.g., Claggett and Cable 1982). The following Palmer phase retains many of the same formal tool types, while the Palmer projectile point is a side-notched variety generally lacking basal thinning or fluting (Coe 1964).

In terms of settlement, there appears to have been a dramatic increase in site frequency from Clovis to Hardaway. Hardaway and Palmer sites are present in a wide variety of environmental zones. If O'Steen's (1983) model of Transitional period settlement in the Georgia Piedmont can be applied to the South Carolina Piedmont and Sandhills, the major sites would be expected near large rivers, particularly around areas of shoals or narrows.

Only a few Paleoindian projectile points have been reported from the area, particularly the earlier fluted types. The majority of these specimens have been recovered from surface or plow zone contexts. Charles's (1986) survey of lanceolate Paleoindian points in South Carolina suggests that the majority of specimens recovered to date were manufactured from high-quality Coastal Plain cherts that are exposed along the Savannah River in Allendale County and adjacent portions of Georgia.

***The Archaic Stage.*** The Archaic stage represents the adaptation of southeastern Native Americans to Holocene environments. By 10,000 BP, the forests had changed from sub-boreal types common during the Paleoindian period to more modern types. The Archaic stage is divided into three temporal periods: Early, Middle, and Late. Distinctive projectile point types serve as markers for each of these periods. Hunting and gathering was the predominant subsistence mode throughout the Archaic periods, although incipient use of cultigens probably occurred by the Late Archaic period. Also, the terminal Archaic witnessed the introduction of a new technology, namely, the manufacture and use of pottery.

***Early Archaic Period (10,000 to 8,000 BP).*** The Early Archaic corresponds to the initial adaptation of native groups to Holocene conditions. The environment in central South Carolina during this period was still colder and moister than at present, and an oak-hickory forest was establishing itself on the Coastal Plain (Watts 1970, 1980; Whitehead 1965, 1973). The megafauna of the Pleistocene had disappeared, and more typical woodland flora and fauna were established. Early Archaic finds in the region are typically side or corner-notched projectile points (e.g., Taylor, Palmer, and Kirk), which have been determined to be Early Archaic through excavation of sites in other areas of the Southeast (Claggett and Cable 1982; Coe 1964).

Early Archaic sites generally are small, suggesting a high degree of mobility. Diagnostic projectile points have been recovered from all portions of the Lower Piedmont and Upper Coastal Plain, suggesting a shift from the riverine emphasis of the earlier Paleoindian period (Goodyear et al. 1989:38; Wetmore et al. 1986:18). This is particularly true for the earliest Palmer points. Interestingly, these types display a technological continuation of the earlier Paleoindian lithic tradition not found in the later corner-notched or bifurcated types (Goodyear et al. 1989:39; Oliver 1985:200).

Anderson and Hanson (1988) propose a model for Early Archaic subsistence/settlement on the South Atlantic Slope. This model suggests the implementation of high residential mobility throughout most of a season, with aggregation in the winter when resources are less widely distributed within the region. Further, population aggregates are associated with specific drainages. Annual population movements include use of the Piedmont and Upper Coastal Plain within each drainage. The Sandhills presumably were visited in the fall, probably due to the presence of dense oak masts and concentrations of mast-consuming ungulates (i.e., deer; [Sassaman et al. 1990:50-52; Sassaman et al. 2002]). Anderson and Hanson (1988:271) suggest the

presence of “macrobands” associated with the larger drainages that cross the region. Interaction between these larger aggregates permitted the flow of extra-local raw materials, information, and mates between the groups occupying each drainage.

In contrast, O’Steen’s (1983) model of Early Archaic settlement suggests fairly restricted occupation during this period in the Oconee Valley of the Georgia Piedmont. Recurring occupation of base camps within the valley, at locales that provided access to the greatest density and diversity of resources, was suggested with lithic exchange networks that extended across territorial boundaries of particular groups.

***Middle Archaic Period (8,000 to 4,000 BP).*** The trends initiated in the Early Archaic (i.e., increased population and adaptation to local environments) continued through the Middle Archaic period. Climatically, the study area was still warming, and an oak-hickory forest dominated the region until circa 2000 BC, when pines became more prevalent (Watts 1970, 1980). Stemmed projectile points (e.g., Stanly, Morrow Mountain, Guilford Lanceolate) and ground stone artifacts characterize this period.

On the nearby Piedmont, site densities increased through the Middle Archaic period, suggesting more intensive implementation of foraging strategies; no specific locales appear to be favored for occupation (Blanton and Sassaman 1989:59-60). On the Coastal Plain, Middle Archaic sites occur with less frequency but show evidence of more intensive habitation and large-scale tool production. This suggests increased “patchiness” in resources on the Coastal Plain, compared to earlier periods or the contemporary Piedmont (Sassaman et al. 1990:10). Middle Archaic sites in the Sandhills region appear to relate more to the Coastal Plain pattern. Anderson’s (1979) excavations at 38LX5 and 38LX64 on the Congaree River suggest the use of the floodplain as long-term residential locales similar to logistical base camps and the use of nearby upland settings as more specialized resource extraction locales. Middle Archaic sites, usually consisting of a few flakes and points, are scattered throughout the Savannah River Site (SRS), located to the south of the project corridor. These distributions parallel site occurrences on the Piedmont, suggesting that Middle Archaic groups were highly mobile and exploited a wide variety of resources from all possible settings in the region. Excavations at Middle Archaic sites in the Sandhills along Lynches River in Chesterfield County to the northeast by Gunn and Wilson (1993) and McMakin et al. (2000) suggest adaptations similar to those noted by Sassaman et al. (1990).

***Late Archaic Period (4,000 to 2,500 BP).*** The Late Archaic period apparently relates to a time of population expansion and increased local adaptations (Caldwell 1958). It also is during this time that the first pottery appears on the South Carolina coast and in the Fall Line region. This pottery is the sand-tempered or untempered Thom’s Creek series and the fiber-tempered Stallings series; both of which are decorated by punctation, incising, finger pinching, and, for Thom’s Creek, possibly simple stamping and dentate stamping. Large, stemmed bifaces (e.g., Savannah River) are the most common lithic artifacts in the earlier pre-ceramic Late Archaic assemblages. Smaller, stemmed points appear in association with the ceramic wares, apparently representing a transition between the ceramic Late Archaic and subsequent Early Woodland cultural manifestations of the region.

Late Archaic sites throughout the southeastern Atlantic seaboard suggest that intensive exploitation of specific aquatic resources was common throughout the period. Large sites, presumably representing long periods of occupation by a large population aggregate, occur along the major drainages and the coastal estuaries. An emphasis on anadromous fishes (at the Fall Line and on the Piedmont) and shellfish (along the coast) has been suggested by several researchers (Claggett and Cable 1982:40; Taylor and Smith 1978) to explain the presence of these large sites. However, the distinctive large, stemmed projectile points

generally associated with Late Archaic occupations have been recovered from sites in almost all environmental settings from the mountains to the coast throughout South Carolina (Wetmore et al. 1986:21). Thus, Late Archaic sites can be expected throughout the Inner Coastal Plain of South Carolina.

Sassaman et al. (1990:312-314) propose a model for Late Archaic settlement on the SRS that includes large population aggregations in the river valley during the spring and summer, with a dispersal of smaller family groups into tributary drainages during the fall and winter of each year. This would result in the development of large, dense sites with very diverse artifact assemblages in the river floodplain, and smaller, less diverse sites along smaller drainages and in the inter-riverine areas. Anderson's (1979:236-237) excavations at four sites in the Congaree Valley in Lexington County tend to support such a model, with two sites located in upland settings adjacent to the floodplain containing remains suggestive of limited-activity animal processing and two sites on the floodplain containing evidence of intensive occupation suggestive of long-term residence and a wide range of activities.

***The Woodland Stage.*** The Woodland stage is marked by the introduction of pottery and the use of smaller triangular projectile points, assumed to indicate the presence of the bow and arrow. The change in material culture represents a change in subsistence strategies and approaches to hunting and gathering. The Woodland is divided into three temporal types (Early, Middle, and Late), marked by distinctive pottery types.

***Early Woodland Period (2,500 to 1,800 BP).*** The first Woodland manifestations in the region are characterized by a significant increase in stamp-decorated pottery. Following Espenshade and Brockington (1989), definitive markers of the Early Woodland are Deptford Check Stamped (linear and bold), Deptford Simple Stamped (including possible Refuge Simple Stamped), and coarse sand-tempered, fabric-impressed pottery. In the Early Woodland, the region apparently represented an area of interaction between widespread ceramic traditions, with the paddle-stamped tradition dominant to the south and the fabric-impressed and cord-marked tradition dominant to the north and west (Blanton et al. 1986; Caldwell 1958; Espenshade 1986; Espenshade and Brockington 1989).

The subsistence and settlement pattern of the Early Woodland period suggests population expansion and the movement of groups into areas used less intensively in earlier periods. Hanson (1982) suggests that this dispersal reflects a collapse of a previously stable resource base (e.g., drowned estuaries on the coast [Trinkley 1989:78]) and the attempt of Early Woodland populations to replace a focused subsistence strategy with a more diffused one (Cleland 1976). Anderson and Joseph (1988:218) note a similar diffusion of population and reduced regional interaction during the Early Woodland period of the Middle Savannah River Valley of South Carolina as well. Similar dispersals are noted from the Savannah River Site, with a shift from the floodplains to an occupation of the uplands along the many tributaries of the Savannah River (Sassaman et al. 1990:315). Anderson (1979:237) suggests a general shift away from the Congaree floodplain as well. Presumably, single-family residences were established in upland locales that were inhabited throughout the year. Additional resources were procured through exchange with neighbors or collected from specialized sites scattered throughout the immediate area.

Thus, Early Woodland sites most common in the region generally consist of small ceramic and lithic scatters in a variety of environmental zones. Some sites will represent residential locations of single-family units, while others will represent resource-extraction loci. Lower artifact frequencies and diversity, and reduced site size, could be expected at the resource-extraction sites.

***Middle and Late Woodland Periods (1,800 to 1,000 BP).*** The typological manifestations of the Middle and Late Woodland periods in the region are somewhat unclear. The check-stamped tradition of the Early Woodland Deptford series continues through most of the Middle Woodland period. Cord-marked and fabric-impressed ceramics continue to be produced through the Middle and Late Woodland periods, as do simple-stamped wares. There is no single decorative mode that can be associated with these periods, and research in the project region has only begun to sort out the confusion (Blanton et al. 1986; Trinkley 1983).

Middle and Late Woodland settlement patterns appear to continue the diffused distributions noted for the Early Woodland (Trinkley 1989:83-84). Interior Coastal Plain sites of the periods tend to occur adjacent to the large, swampy floodplains of the many rivers crossing the Coastal Plain, with numerous small scatters of Middle/Late Woodland artifacts occurring on the inter-riverine uplands. McMakin et al. (2000) recovered few Late Woodland artifacts from sites excavated on the upper Lynches River; however, two sites contained burials that produced radiocarbon dates from the Late Woodland period (circa 1,200 to 1,100 BP).

***The Mississippian Stage (1,000 to 450 BP).*** Mississippian societies represent the most complex prehistoric cultural development in the southern United States. The diagnostic complicated stamped ceramics and small triangular projectile points of this period mark the transition of groups in the region to a complex system of social organization that lasted until European contact. In most areas of the Southeast, the Mississippian period is characterized by an emphasis on agriculture and by the development of complex public works and ceremonial centers occupied by a highly stratified society. The Native American groups encountered in the region by European explorers and traders from the 1540s through the mid-1700s were Mississippian societies. Contact with the Europeans introduced new technologies and diseases that greatly altered the social and political organizations that were present in the region in the sixteenth century.

Mississippian groups apparently were aligned along major drainages (i.e., those with extensive floodplains) and the coastal strand (i.e., near estuarine resources) (Anderson 1990:114). A wide range of site types have been identified as Piedmont Mississippian occupations throughout South Carolina, North Carolina, and Georgia. Larger villages tend to be associated with specific mound sites. Smaller habitation sites are scattered along the surrounding drainages, to the extent that single-family compounds may be present on secondary drainages with adequate floodplains to support the agricultural production of foodstuffs (Ferguson and Green 1984; Poplin 1990). Ferguson and Green (1984) also note that Mississippian centers generally display a symmetric distribution above and below the Fall Line, with few large sites in the immediate location of the distinctive rapids of the local rivers. Thus, major Mississippian sites tend to be located along the major drainages of South Carolina that possess extensive floodplains; however, they occur either on the Lower Piedmont (above the Fall Line) or on the Upper Coastal Plain (below the Fall Line) rather than at the transition between these two major physiographic regions of the state.

Much of the Savannah River Valley appears to have been abandoned during the later Pre-Contact and Contact periods. Anderson (1990:119) suggests that an extensive buffer existed between the province associated with Cofitachequi—the regional “center” of Mississippian settlement throughout central South Carolina (DePratter 1989) on the Wateree River near Camden—and the neighboring province of Ocute, presumably centered on the Oconee River in Georgia. Extensive research has not been conducted in the drainages between the Savannah and Wateree, but large Mississippian settlements have not been positively identified in these drainages to date.

Besides the large central-mound villages, many small scatters of Mississippian artifacts are found in diverse environmental settings throughout the surrounding region. These sites probably represent resource-extraction loci, since an amalgam of agricultural produce and hunted and gathered remains provided subsistence for Mississippian groups throughout the Southeast (Smith 1975). As an example, Goodyear (1979:11-12) noted extensive Mississippian sites along the Congaree River below Columbia. These sites are interpreted as base camps located near prime agricultural lands, from which inter-riverine locales were visited to collect resources not available on the floodplain.

### 2.2.2 Contact Era

This is the time of initial contact between the indigenous populations and Europeans arriving in North America. Other than a few direct contacts, most Native American groups “encountered” Europeans through trade goods and diseases. However, several groups established strong relationships with the European colonists, monopolizing trade with the coastal settlements and sometimes helping them enslave others for the new settlers. Although a few Spanish explorers landed on the coast of South Carolina during the first half of the sixteenth century, the first incursion into the interior occurred in 1540 when the De Soto expedition passed through the region. The French and Spanish both established settlements on Parris Island in Port Royal Sound in the 1550s and 1560s; the Spanish settlement of Santa Elena would remain in place until the late 1580s. During this time, a few Spanish explorers and traders traveled into the interior of the Carolinas. From the abandonment of Santa Elena in 1588 until the establishment of Charles Towne in 1670, no known European visits to the interior of South Carolina occurred.

The middle Savannah River Valley appears to have been unoccupied during the sixteenth century. The area was reported to be deserted by the 1540 Hernando de Soto expedition and has been termed the “desert of Ocute” (Hudson et al. 1984). Anderson (1990) links this abandonment to cycling in chiefdoms and other episodes of political upheaval. Several groups are identified in the region after the establishment of Charles Towne in 1670, including the Westo during the late seventeenth century and the Shawnee, Apalachee, Apalachicola, Chickasaw, Yamacraw, and Yuchi in subsequent decades (DePratter 1988).

In 1680, the Savannas migrated into the region and drove out the Westos, whose numbers had been decimated by a war with other local tribes. These mysterious Savannas were probably a group of isolated Chickasaw that moved from the Georgia side of the Savannah River to Beech Island on the South Carolina side of the river. They made trading connections with the Goose Creek men near Charles Towne and were given a town on the bluff of the big river initially called the Westbou, but then the Savannah. As friends of the Carolinians, the Savanna received special trading rights and enjoyed a brisk trade of deerskins and enslaved Indians sold to Charles Towne merchants (Crane 1956).

Very little is known about Savannah Town before the year 1690. The Joel Gascoyne Map, dated 1685, shows a path running from Charles Towne via Goose Creek to the fork of the Edisto River and then west to “Savanna Town and Fort.” Gascoyne’s map substantiates a settlement at that time, but the exact date that of permanent settlements of colonial traders is not known. It is likely that traders lived in the area very early on with protection from their Savanna allies.

One of the better documented and longest lasting occupations was that of a small, possibly renegade band of the Chickasaw invited by the Carolina leadership to settle near Fort Moore. Fort Moore was constructed in 1716 by the British near the abandoned site of Savannah Town (Ivers 1970). Note that this settlement is now recorded as archaeological Sites 38AK0004 and 38AK0005. Under the leadership of a chief known as the Squirrel King, this small band of Chickasaw, perhaps 30 or 40 in number, arrived in the project area circa 1723 (Milling 1969:188). Their settlement, located across the Savannah River from New



Windsor township, originally consisted of 8,710 hectares. The Lower Chickasaw, as the group came to be known as, became faithful allies of the British.

While their loyal military service was praised, the Lower Chickasaw had a series of small altercations with white settlers on adjacent lands. To help prevent encroachment by the immigrating Carolinians, the Chickasaw settlement was surveyed and officially deeded to the tribe in 1739 (Milling 1969). This did little to relieve friction between the Chickasaw and their neighbors. Accusations of theft and threats against white settlers plagued local officials, who hastily reprimanded alleged Chickasaw perpetrators. Also feeling pressure from neighboring Indian groups such as the Cherokee, the Lower Chickasaw traded some of their holdings in the New Windsor township for a tract located on the Georgia side of the Savannah River (Milling 1969).

When asked why they preferred the new tract to their older holdings around Horse Creek, the Old Doctor, apparently a shaman among the Lower Chickasaw, replied that the new location was less vulnerable to attack by Indian neighbors to the north (Milling 1969). According to some sources (Milling 1969), the Lower Chickasaw never officially ceded their lands on the east bank of the Savannah River and lived for a while on both sides of the river; however, the entire settlement was located on the Georgia side by 1758 (Cashin 1978).

According to Cashin (1986), the Chickasaw were awarded lands on the Georgia side of the river in exchange for agreeing to help establish the city of Augusta. Roger Lacy, appointed by Oglethorpe to enforce Indian trade regulations and to establish Augusta, had surveyors “run out” a town for the Lower Chickasaw (Cashin 1986:31). This town, called New Savannah, was located approximately 16 km south of Augusta on a bend of the Savannah River. Records of grievances made by the Lower Chickasaw concerning, among other things, squatters from the north and horse thieves, indicate that a considerable number of tribal members were still living on the South Carolina side of the river as late as 1766 (Milling 1969).

The Chickasaw, like most of the Native American groups in the Southeast, sided with the British during the American Revolution. In 1783, the Assembly of South Carolina passed an ordinance authorizing the confiscation of loyalist estates, including the land holdings of the Chickasaw (Milling 1969). Georgia adopted a similar policy toward loyalists, completely removing the Chickasaw from the area. The Catawba, who sided with the patriots during the Revolution, assumed the position of frontier guardsmen along the Savannah River. In the years that followed the Revolution, many former Tories were able to recover confiscated properties; however, the Lower Chickasaw were not as fortunate. On the technicality that the Indians held these properties as individuals and not as the Chickasaw Nation, a petition to recover their lands was denied by the courts (Milling 1969).

### **2.2.3 Post-Contact Era**

The first known Europeans to come to South Carolina were the Spanish captains Francisco Gordillo and Pedro de Quexos and their sailors in the summer of 1521. Thereafter, the southern Carolina coast was of great interest to both the Spanish and the French. The Spaniard Ayllon attempted to establish the settlement of San Miguel de Gualdape in 1526 but was unsuccessful. The location of this settlement is not known, although it is thought to have been in the vicinity of Winyah Bay (Quattlebaum 1956). In 1526, the French under Jean Ribault attempted to establish a settlement on the South Carolina coast. This settlement, in the Port Royal Sound area, was called Charlesfort and was unsuccessful. Hernando de Soto and his expedition explored the interior of the southeast from 1540 to 1542 and visited the Province of Cofitachique. Scholars disagree on the exact location of this province; generally, it is placed in western South Carolina. Indian groups of the area were probably contacted by the Juan Pardo expedition during 1566 and 1567. A successful

Spanish settlement was finally established on Parris Island in Port Royal Sound in 1566. This settlement, called Santa Elena, was abandoned by the Spanish in 1587 (South 1979).

The interior of South Carolina remained largely unexplored by Europeans until the establishment of Charles Towne (Charleston) in 1670. This English settlement grew slowly in the beginning but served as a base for repeated explorations into the interior of the region. Shortly before 1700, English trappers and traders began moving into western South Carolina. Diseases and warfare had largely decimated Lowcountry native groups, and the dominant tribe in western South Carolina was the Iroquois-speaking Cherokee. The English and the Cherokee soon became major trade partners. Coarse woolen cloth, hardware, glass beads, hatchets, hoes, and knives were exchanged for furs and skins (Petty 1943:29).

Deer hides became the most important product exported to England in the first quarter of the eighteenth century. Trade with the Cherokee was so brisk that it was taken over by the provisional government in 1716. As many as 230,000 deer skins were received in Charleston in 1732. By 1750, exports of deer skins were worth \$1 million (Klosky 1971:6). In 1751, trade legislations regulated the employment of traders, rum distribution, and traders' bond limits. In 1752, the Cherokee Nation was mapped into 13 hunting ranges with one trader assigned to each range. Contemporary reports include one trader's estimate that he would buy 14,000 deer skins (Van Clayton 1988:4).

For decades, traders financed by Charles Towne's merchants had plundered, killed, and enslaved the Indians of the backcountry. In 1715, the Yamasee and their confederates – the Creeks, Choctaws, and Catawbas – retaliated against the European settlers. On Good Friday, April 15, 1715, they fell on frontier settlements 129 km southwest of Charles Towne, murdering about 100 persons, including the wealthy Indian trader and legislator Thomas Nairne, who was slowly burned to death. Indian raiding parties struck with terrifying suddenness along the Combahee and Edisto Rivers, and then along the Stono River just below Charles Towne. Refugees streamed into the city and the governor called out the South Carolina militia and led them on a counterattack. "The Carolinians sought help from the Proprietors, but they refused to spend any more money on Carolina and indicated that the colonists should rely on their own resources. The crisis ended only when the Cherokees at the western end of the colony agreed to aid the Carolinians by attacking the Creeks in early 1716, thus relieving the pressure on Charles Towne and helping to end one of the bloodiest and most costly of the Indian wars in colonial America" (Fraser 1989:32-33).

Trade came to a standstill during the war and the colony's indebtedness to English creditors put Charles Towne's economy on shaky ground. In addition, crops were neglected for several years, buildings and fences were burned, and livestock slaughtered or carried off. At least 400 Carolinians, mostly farmers, were murdered and many others fled the colony. The conflict impressed upon the colonists the strategic value of settling the backcountry and constructing frontier fortifications. The Carolinians immediately designed plans for a fort in the backcountry for their allies, the Cherokees, and the expedition to build it soon departed. Fort Moore was constructed as a strategic buffer between Charles Towne and hostile Indian groups along and west of the Savannah River (Weir 1983:84-85).

Fort Moore was built at Savannah Town on the high bluff that had been recently occupied by the Savanna Tribe. The construction of Fort Moore was handled by Captain Gerald Monger, who was the first commander of the post. It was named in honor of former Governor James Moore, a prominent trader of enslaved peoples. The fort possessed a commanding view of the trading trails that approached from both across the Savannah River and upriver. For over 50 years the wooden fort guarded the western edge of the Carolina colony, providing protection for traders and settlers moving into the upcountry. It served as both garrison and trading post for the friendly inland tribes (Crane 1956).

Fort Moore was often in a state of disrepair, the walls rotting, the footing devoured by termites. Even though the fort was small, it was important to the upcountry defense and lucrative deerskin trade, so constant effort and expense went into maintenance. By 1720, the garrison was manned by 20 regulars and the path from Fort Moore and Savannah Town was continually patrolled by frontier soldiers called Rangers. In about 1747, Fort Moore was rebuilt with walls over nine-feet high and a walkway platform around the inside. Though the barracks could hold a hundred soldiers, there was rarely such a large contingent there, the usual number ranging from fifteen to thirty. The settlement of Augusta on the west side of the Savannah River marked the decline of Fort Moore as a military and trading factor and in 1763, the fort was abandoned. Johnston (1763) described Fort Moore before it was abandoned as:

... on a beautiful and commanding Situation, is another Fort, named Fortmore, about one Hundred and fifty Miles West from Charles-Town; it is built of six-inch Plank nailed to Posts of light Wood, with four Towers or Bastions on the Angles, on which are small Cannon mounted; on the Inside is a Banquet, with loop-holes in the Courtines for small-arms; it has neither Ditch nor Glacis, but very good Barracks for one Hundred Men.

Prior to and during the Revolution, western South Carolina was a lawless border land (Klosky 1971:13). It was occupied by European American squatters who had gone there to escape the laws of the Colony (the closest law court was in Charleston). Concerned citizens banded together and formed a vigilante group called the Regulators. Another group was formed to support the existing colonial authorities and called themselves the Scovils. These two groups would eventually become known as Whigs (Regulators) and Tories (Scovils).

European settlement of the Savannah River drainage system began with the establishment of Augusta and New Windsor in the 1730s (Brooks 1981:25). Trading posts established along the Savannah River became important centers of fur trade between the English, the Cherokee, and the Creek Indians.

Ties between the colonists and the Cherokees began to disintegrate during the middle 1700s (Klosky 1971:8). The global conflicts between England and France spread to the New World, as evinced by the French and Indian War of 1754 to 1763. The Creek and Cherokee became involved in this brutal conflict as allies of the English and French. Numerous battles had decimated the ranks of fighting men from both tribes, weakening their military strengths, and, therefore, their usefulness to England and France. Tensions between the Cherokee and the English escalated to the Cherokee War in 1759. Bands of Cherokee raided settlements and burned homesteads along the frontier (Van Clayton 1988:4). British troops, along with the local militia repeatedly defeated the Indians in battle, and eventually burned all Cherokee towns in South Carolina (Van Clayton 1988:7).

During the Revolutionary War (1775 to 1783), South Carolina was held by Patriot forces from November 1775 until the spring of 1780 (Holschlag and Rodeffer 1977:21). The British attacked and captured Charleston in May 1780, and a month later, General Andrew Williamson surrendered his Patriot forces at the town of Ninety-Six. The British garrisoned the town with 650 Loyalists as part of a string of fortifications at Augusta, Camden, and Georgetown. Patriot General Nathanael Greene laid siege to the town in May 1781 but could not hold the siege. The town was abandoned by the British soon after because it was difficult to maintain and re-supply (Holschlag and Rodeffer 1977:23).

The Revolutionary War further stifled settlement in the area. Rebel and Tory groups fought back and forth over western South Carolina. Two skirmishes occurred in Aiken County at Beech Island and Galphin's

Fort; both were related to the American capture of Augusta from the British (Brooks 1981:28). Another skirmish occurred in Barnwell County at Wiggins Hill.

After the Revolution, settlement and farming began in earnest. The land was cleared and cultivated, and corn and wheat were the major cash crops until Eli Whitney's cotton gin made using the enslaved for the production of cotton economically possible. Lack of good roads, however, made transportation of goods to market difficult, and the Savannah River became the major transportation route between the backcountry and the coast (Brooks 1981).

To stimulate commerce, Charleston businessmen, including William Aiken, procured a charter in 1827 to build South Carolina's first railroad from Charleston to Hamburg (Brooks 1981:36). The South Carolina Canal and Railroad Company (SCCRR) constructed a 218.87-km-long track built primarily by the enslaved and free blacks (Strother 2008). When completed in 1833, it was the longest railway in the world at that time. The South Carolina Railroad carried over 100,000 bales of cotton a year to Charleston by 1846 (Brooks 1981:36). The railroad encouraged settlement of the interior of the state, and substantial towns, including the town of Aiken, were constructed at almost every train station from Hamburg to Charleston.

Aiken was founded in 1834 by the SCCRR becoming the second town in U.S. history to be founded by a railroad company. The town was placed at a bend in the railroad at Big Horse Creek where a steep elevation change necessitated the building of what was known as the Inclined Plane. The Inclined Plane was a section of parallel track that was designed to aid train cars ascending and descending the steep grade along the Fall Line with a steam-powered pulley system. Cars at the top and bottom of the hill would be attached to the pulley as counterweights while a stationary steam engine mounted to a hoisting wheel would pull the bottom cars to the top and lower top cars to the bottom simultaneously. Separate locomotives would then transfer the bottom cars onto Hamburg and the top cars to Charleston. The Inclined Plane was replaced by the 1852 Aiken Cut, through which the modern railroad currently passes (Wayt 2016).

With the outbreak of the Civil War, Aiken was used as a mustering station for Confederate forces at Camp Butler. Little activity occurred in the South Carolina backcountry until the last year of the war. After the capture of Savannah, General Sherman's army moved north and captured and burned the towns of Blackville and Williston, destroying a substantial amount of railroad track in between. Sherman sent General Kirkpatrick and his cavalry to raid Aiken; he hoped to confuse the Confederates into believing Augusta, instead of Columbia, was the next object of his attentions. General Wheeler and his cavalry successfully opposed the Federal raid into Aiken on February 11, 1865 in what has become known as the Battle of Aiken. After the raid, both Wheeler and Kirkpatrick moved back toward General Sherman's route to Columbia. General Lee surrendered in Appomattox, Virginia on April 9, 1865 and General Johnston surrendered in Bentonville, North Carolina on the 26th of April, ending the war (Barrett 1987:98).

The end of the Civil War brought vast changes to South Carolina, and particularly to the upcountry. New ways of doing business came to the fore, which placed a premium on the small, but growing, inland towns and their merchants. Agriculture also was profoundly changed with the sudden end of slavery. Reconstruction began a period of experimentation in systems of organizing labor, particularly on the area's farms. Prunty (1955) attributes the development and growth of the tenant system to extensive changes in sources of labor and availability of capital. The reorganization that occurred was based primarily on changes in the relationship between management and labor, and resulted in the broad dispersal of smaller, individual farmsteads within the former boundaries of plantations. Spatial differences between antebellum and postbellum plantation settlement patterns resulted from a movement away from the pre-war nucleated plantation village toward a dispersed pattern of tenant farms. The critical factor determining the extent of

settlement distribution was the control and ownership of working livestock, agricultural implements, and housing. Shifts in settlement related to plantation reorganization occurred throughout the study area, establishing new spatial and labor relationships between former owners of the enslaved, freedmen, and non-landholding whites.

Orser (1988:92) describes two main subtypes of the pattern: the cropper and the tenant farmer. The cropper relied on the amenities of the plantation, utilizing its barn and other outbuildings; the croppers' houses were similar to quarters of the enslaved. The tenant farmers' outbuildings were placed near their own residences. These were usually larger than the croppers' homes and provided the tenant farmers with a greater degree of independence. The typical tenant house was "a dilapidated, unpainted, weather beaten frame cabin leaning out of plumb on rock or brick pilings—unceiled, unscreened, covered with a leaky roof" (Orser 1988:94).

Aiken also became a destination for wealthy northerners who established grand equestrian estates. The start of this trend began when Thomas Hitchcock, a sportsman from Long Island, married Louise Eustis who had moved to Aiken in 1876 from New Orleans (Vandervelde 1999). This Winter Colony, as this section of Aiken came to be known, centered on life that revolved around horses and included homes, trails, pastures, tracks, and stables. In town, the Winter Colony residents also established banks, churches, a tennis facility, golf courses, and other community buildings. Aiken today remains much the same, with local cotton, fruit and vegetable farmers sharing this small community with wealthy part-time residents who spend their winters in Aiken for recreational pursuits.

In the 1950s, the federal government built the Savannah River Nuclear Plant 16.1 km south of town, from which Aiken,

...was wrenched out of its fairyland existence. Today, with a three-tiered society of horse enthusiasts, Southern townspeople, and another stratum of scientists and technocrats, Aiken is a community like no other (Hale 2000:7).



## 3.0 Methods of Investigation

### 3.1 Project Objective

The objective of this archaeological resources investigation was to assess the potential for the proposed construction of the transmission line structures to affect historic properties. Refer to Dobbs (2019) for the windshield reconnaissance of historic architectural resources within the study area. Tasks performed to accomplish this objective include background research and archaeological survey. Additional tasks undertaken by Brockington include curation, and report writing. Methods employed for each of these tasks are described below.

### 3.2 Background Research

The project manager searched the ArchSite 2.0 program for previous cultural resource surveys and previously identified archaeological sites and historical architectural resources within one km of the project corridor. Previous cultural resource investigations and previously recorded cultural resources within one km of the corridor are discussed in Chapter 4. The purposes of the archival research were to identify known Pre- or Post-Contact archaeological sites and historic buildings that are listed on or eligible for listing on the NRHP, and to develop a historical context that would assist in evaluating cultural resources identified during the field investigations. The principal investigator also researched primary and secondary resources pertaining to the Aiken area, including Mills (1825), the series of historic topographic maps in the University of South Carolina's Thomas Cooper Library digital archives, Strother (2008), Vandervelde (1999), and Hale (2000). Maps were produced using ArcGIS 10.5.1 software (Environmental Systems Research Institute [ESRI] 2016) to plot any previously recorded sites on the USGS topographic quadrangle relative to the project tract location.

### 3.3 Field Investigations

Field survey entailed the systematic examination of the project corridor following *South Carolina Standards and Guidelines for Archaeological Investigations* (COSCPA 2005). The proposed upgrades to the transmission line structures and equipment will be within the existing ROW except the two minor locations where new ROW will be obtained. Brockington archaeologists examined the transmission line corridor by means of two survey transects at 30-m intervals within 15 m of the east and west corridor boundaries for the first 17.0 km from Urquhart Junction and a single transect 15 m from the west boundary of the existing corridor for the remaining length from Toolebeck.

We excavated shovel tests at 30-m intervals along each transect (see Appendix C). Each shovel test measured approximately one foot in diameter and was excavated into culturally sterile subsoil (Figure 3.1). The fill from these tests was sifted through one-quarter-inch mesh hardware cloth. Information relating to each shovel test and soil profile was recorded in field notebooks. This information included the content (e.g., presence or absence of cultural materials) and context (e.g., soil color, texture, and stratification) of each test. Investigators also visually inspected the ground surface where possible. All shovel tests were backfilled upon completion.

An archaeological site is a locale yielding three or more Pre- or Post-Contact artifacts within a 30 m radius. Locales where structures, berms, soils stains, or other features are present may also be classified as

sites. Locales that produce fewer than three contemporaneous artifacts are identified as isolated finds (COSCPA 2005). Also, obviously redeposited artifacts (even if greater than three in number) are typically defined as an isolated find rather than a site unless there is a compelling reason for doing otherwise.



Figure 3.1 Archaeologist excavating a shovel test within the project tract.

### 3.4 Laboratory Analysis and Curation

All recovered artifacts were transported to Brockington's Atlanta laboratory facilities, where they were cleaned, cataloged, and analyzed. All field notes, photographs, project notes, and other information generated by this survey will be temporarily stored at Brockington's Atlanta facilities. Following approval of the final report of investigations, these materials will be submitted to the University of Georgia, Laboratory of Archaeology in Athens for curation or another facility that meets the standards defined in 36 CFR Part 79, *Curation of Federally-Owned and Administered Archeological Collections; Final Rule*. Distinct provenience numbers were assigned to each shovel test and surface collection:

- Provenience 1 designates general surface collections. Numbers after the decimal point designate subsequent surface collections, or trenches.
- Proveniences 2 to 200 designate Phase I shovel tests.
- Proveniences 201 to 400 designate one-by-one-m Test Units (TUs) done for Phase II testing purposes. Proveniences 401 to 600 designate Excavation Units (EUs) excavated as part of site mitigation (Phase III)
- Provenience numbers over 600 designate cultural features, regardless of Phase of investigation.

For all provenience numbers except 1, the numbers after the decimal point designate levels. Provenience X.0 is a surface collection at a shovel test or unit. X.1 designates level one, and X.2 designates level two. For example, 401.2 is Excavation Unit 401, Level 2. Flotation samples are designated by a 01 added after the level. For example, 401.201 is the flotation material from Excavation Unit 401, Level 2.

Within each provenience, artifacts were sorted by criteria such as material class, manufacture method, object form, and decoration. Each group of artifacts was counted and weighed, then bagged in 4-millimeter (mm) polyethylene self-sealing, archivally stable bags and assigned a catalog number. Weights were taken with an Ohaus CS-200 digital scale; for groups of artifacts weighing over 200 grams, a MyWeigh KD-7000 digital scale was used. Measurements were taken using Mitutoyo digital calipers. Archival paper tags that duplicate the bag and catalog information were placed in each individual bag. Fragile artifacts were packaged in Ethafoam sheets and placed in a hard polyethylene tub.

Diagnostic artifacts were labeled using a basecoat of clear or white Acryloid B72, a durable and non-yellowing acrylic polymer. When this was dry, the site number and provenience number were applied using black India ink with permanent pigment and a nib pen. A topcoat of clear Acryloid B72 was applied after the ink had dried. Labeling of artifacts enables easy movement for analysis and photographic purposes and replacement to their corresponding provenience.

All artifact and provenience data were compiled into a database (Microsoft Access 2016). This is a relational database structured around two main bodies of information: provenience information and artifact information. The goal was to record as much information as possible about the recovered artifacts for present and future research. This includes, but is not limited to, function, artifact measurements, manufacture methods, maker's marks, images, and references. The advantage of using a relational database rather than a spreadsheet is the ability to query. This database was designed to retrieve data based on any criteria, whether excavation depth, material class, or artifact function. Microsoft Access also has the ability to store equations in a field, enabling the use of manufacture date calculations based on measurements and other statistical analysis.

### 3.5 Evaluation of NRHP Eligibility

Cultural resources are evaluated based on the criteria for eligibility to the NRHP as specified in Department of Interior Regulations (36 CFR Part 60: *National Register of Historic Places*). According to 36 CFR Part 60.4 (*Criteria for Evaluation*), sites can be defined as significant (i.e., eligible for the NRHP) if they “possess integrity of location, design, setting, materials, workmanship, feeling, and association,” and if they:

**Criterion A.** Are associated with events that have made a significant contribution to the broad pattern of history; or

**Criterion B.** Are associated with the lives of persons significant in the past; or

**Criterion C.** Embody distinctive characteristics of a type, period, or method of construction, or represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

**Criterion D.** Have yielded, or may be likely to yield, information important in prehistory or history.

Architectural resources within the architectural APE were evaluated for listing on the NRHP. As per 36 CFR Part 60.4, there are four broad evaluative criteria for determining the significance of a resource and its

eligibility for the NRHP. The following are guidelines for determining whether a property is significant under the three criteria that usually apply to historic buildings and structures and another two criteria that may be less applicable (adapted from the National Park Service [NPS] 1997).

*Event: Under Criterion A*, the building or structure must be documented to have existed at the time of the event or pattern of events and to have been importantly associated with those events. The association must be conclusive and not tenuous, and the documentation must be through accepted means of historical research. However, these resources are only eligible for listing on the NRHP if they are deemed significant.

*Person: Under Criterion B*, a building or structure must be associated with a person's productive life, reflecting the time when he or she achieved significance. Properties that pre- or post-date the individual's significant accomplishments are usually not eligible unless there are no other properties that might qualify. The documentation must be through accepted means of historical research such as written or oral history. Properties associated with an important individual should be compared with other properties associated with the same individual to determine which best represent the person's historic contributions.

*Design/construction: Under Criterion C*, properties are eligible for the NRHP if they are significant for their physical design or construction, including such elements as architecture, landscape architecture, engineering, and artwork. To qualify under this Criterion, a property must satisfy at least one of the following: "Embody the distinctive characteristics of a type, period, or method of construction." Under this requirement, the property must reflect the way it was conceived, designed, or fabricated by a people or culture in past periods of history. "Distinctive characteristics" are the physical features or traits that are repeatedly encountered in individual types, periods, or methods of construction. "Type, period, and methods of construction" refer to the way certain properties are related to one another by cultural tradition or function, by dates of construction or style, or by choice or availability of materials and technology. "Represent the work of a master." A master is an individual who is generally recognized as "great" in a field, a craftsman of consummate skill, or an anonymous craftsman whose work is distinguishable from others by its characteristic style and quality. The property must express a particular phase in the development of the master's career, an aspect of his/her work, or a particular idea or theme in his/her craft. "Possess high artistic values." Under this requirement, a property is eligible if it articulates a particular concept of design such that it expresses an aesthetic ideal.

Additionally, under Criterion C, properties are eligible for the NRHP if they "Represent a significant and distinguishable entity whose components may lack individual distinction." This requirement refers to districts. A district may be composed of a variety of resources but derives its importance from constituting a unified entity. Its varied resources are consequently interrelated, conveying a visual sense of the overall historic environment or arrangement of historically or functionally related properties. As for individual buildings or structures, a district must be significant as well as identifiable, and must be important for historical, architectural, archaeological, engineering, or cultural values. Districts will usually achieve significance under the last requirement of Criterion C plus Criterion A, B, additional portions of Criterion C, or D. A district may have both features that lack individual distinction and individually distinctive features that are focal points. None of the components may be distinctive if the grouping is significant as a whole within its historical context. Most of the components however, must have integrity, as well as the district as a whole. The district can also contain noncontributing elements, the number depending on how the noncontributing elements affect the integrity of the district as a whole.

*Information potential: Under Criterion D*, resources may be eligible for the National Register if they have yielded, or may be likely to yield, information important in prehistory or history. Although most often

applied to archeological districts and sites, this Criterion can also apply to buildings, structures, and objects that contain important information. For these types of properties to be eligible, they themselves must be, or must have been, the principal source of the important information.

*Exceptional Importance: Criteria Consideration G* relates to properties achieving significance within the past 50 years and qualifies as eligible if it is of exceptional importance. Properties that have not reached 50 years of age are typically excluded from the National Register because they have not developed sufficient time to accrue historical perspective.

To assist in the primary object of this investigation, i.e., to provide NRHP eligibility assessments of buildings and structures within the architectural APE, several pertinent guidelines and studies were consulted. Materials used include the following:

- *How to Apply the National Register Criteria for Evaluation*, National Register Bulletin 15 (NPS 1997),
- *Guidelines for Local Surveys: A Basis for Preservation Planning*, National Register Bulletin 24. (Parker 1985),
- *A Field Guide to American Houses* (McAlester 2015).

Archaeological properties are usually evaluated relative to Criterion D. As locations of human activities that include physical remains of those activities, archaeological sites are potential sources of important information.

However, some archaeological sites, particularly those representing historic period occupation or use, can be considered eligible under Criterion A (if they are associated with specific important events or trends in American history), under Criterion B (if they are associated with important people), or under Criterion C (if important structural elements are preserved) (NPS 1997; Townsend et al. 1993).

As indicated in 36 CFR Part 60.4(d), archaeological sites “that have yielded, or are likely to yield, information important in prehistory or history” can be eligible for the NRHP. The NPS defines two requirements for archaeological sites to be eligible under NRHP Criterion D (NPS 1997:21):

1. The site must have, or have had, information to contribute to our understanding of human history or prehistory, and
2. The information must be considered important.

The NPS provides clarification for the first requirement by stating that an archaeological site is eligible for the NRHP if that site “has been used as a source of data and contains more, as yet unretrieved data” (NPS 1997:21).

Regarding the second requirement, Glassow (1977) recommends careful consideration of specific site attributes (integrity, clarity, artifact frequency, and artifact diversity) in determining whether an archaeological site contains important information. Butler (1987:821) defines “important information” as the potential of an archaeological site to contribute to current “theoretical and substantive knowledge” of archaeology in the site’s regional setting. In other words, under Criterion D, importance or significance can be defined as research potential. The research potential of an archaeological site lacking architectural remains can be determined by demonstrating that the site retains relatively intact archaeological contexts, such as culturally or temporally diagnostic artifacts, intact features, discrete artifact clusters denoting



activity areas, or preserved organic material associated with the site occupation. To be considered eligible, these data should be capable of addressing important research questions by testing hypotheses, supporting current scientific interpretations, or reconstructing cultural chronologies through using appropriate analytical methods.

Glassow (1977) indicates that aspects of integrity are also important in determining NRHP eligibility of archaeological sites. However, because “archaeological sites, in particular, do not exist today exactly as they were formed” (NPS 1997:46) and information potential relies less on overall condition of the site; therefore, location and association are the most important aspects of integrity for archaeological sites.

The National Register Bulletin 41 (Potter and Boland 1992) clarifies the processes for evaluating cemeteries and burial grounds for NRHP eligibility. In the past, cemeteries were generally not recommended eligible for the NRHP, but recent adjustments to the process have broadened the range of cemeteries that may be eligible. To be eligible under Criterion A, a cemetery must be “associated with events that have made a significant contribution to the broad patterns of our history”. The cemetery may be linked to a specific event, or to an important long-term trend.

Criterion B requires that the person or persons of the cemetery are of “outstanding” significance to the community, state, or nation. Most family and church cemeteries containing remains of early settlers and their descendants would not qualify under Criterion B.

## 4.0 Survey Results

### 4.1 Background Research Results

We conducted background research using ArchSite 2.0 to identify all archaeological resources located within one km of the project corridor and to develop a context for evaluation purposes. A total of eight previous cultural resources surveys and seven previously recorded archaeological sites were identified within a one-km radius of the project corridor (Figure 4.1). Tables 4.1 and 4.2 list these previous sites and surveys; additional information is provided below. No eligible or NRHP-listed properties are located within the corridor, and those lying within the one-km research buffer will not be directly or indirectly impacted by proposed construction within the existing transmission line corridor.

#### 4.1.1 Previously Recorded Archaeological Sites

Seven previously recorded archaeological sites are located within a one-km radius of the project corridor. Three of these sites were recommended potentially eligible for the NRHP. Site 38AK0043, a prehistoric artifact scatter recorded in 1974 by a local land owner, has an unknown NRHP-eligibility status due to the unknown conditions of its soils and integrity. Site 38AK0484 was identified by Roberts (1987) during a survey for a bridge replacement over Shaw's Creek. The site consists of prehistoric and historic artifacts scattered in the redeposited soil surrounding several catfish ponds. Site 38AK0486 is a prehistoric artifact scatter of unknown cultural affiliation identified along an exposed road cut for a new housing development in 1985. The remaining four previously recorded archaeological sites, 38AK0509, 38AK0512, 38AK1003, and 38AK1016, were recommended not eligible for the NRHP. In addition, none of these seven previously recorded sites are located within an area of direct or indirect impact for the proposed project. Table 4.1 presents brief descriptions of these previously recorded archaeological sites.

**Table 4.1** List of all previously recorded archaeological resources within the one-km radius of the project corridor.

Site Number	Site Description	Cultural Affiliation	NRHP Eligibility
38AK0043	Prehistoric artifact scatter	Early Archaic/Late Woodland	Unknown, pending further testing
38AK0484	Artifact scatter	Unknown Prehistoric/20th Century	Unknown, pending further testing
38AK0486	Prehistoric artifact scatter	Unknown Prehistoric	Unknown, pending further testing
38AK0509	Historic artifact scatter	20th Century	Recommended Not Eligible
38AK0512	Historic artifact scatter	20th Century	Recommended Not Eligible
38AK1003	Historic artifact scatter	19th to 20th Century	Recommended Not Eligible
38AK1016	Historic artifact scatter	19th to 20th Century	Recommended Not Eligible

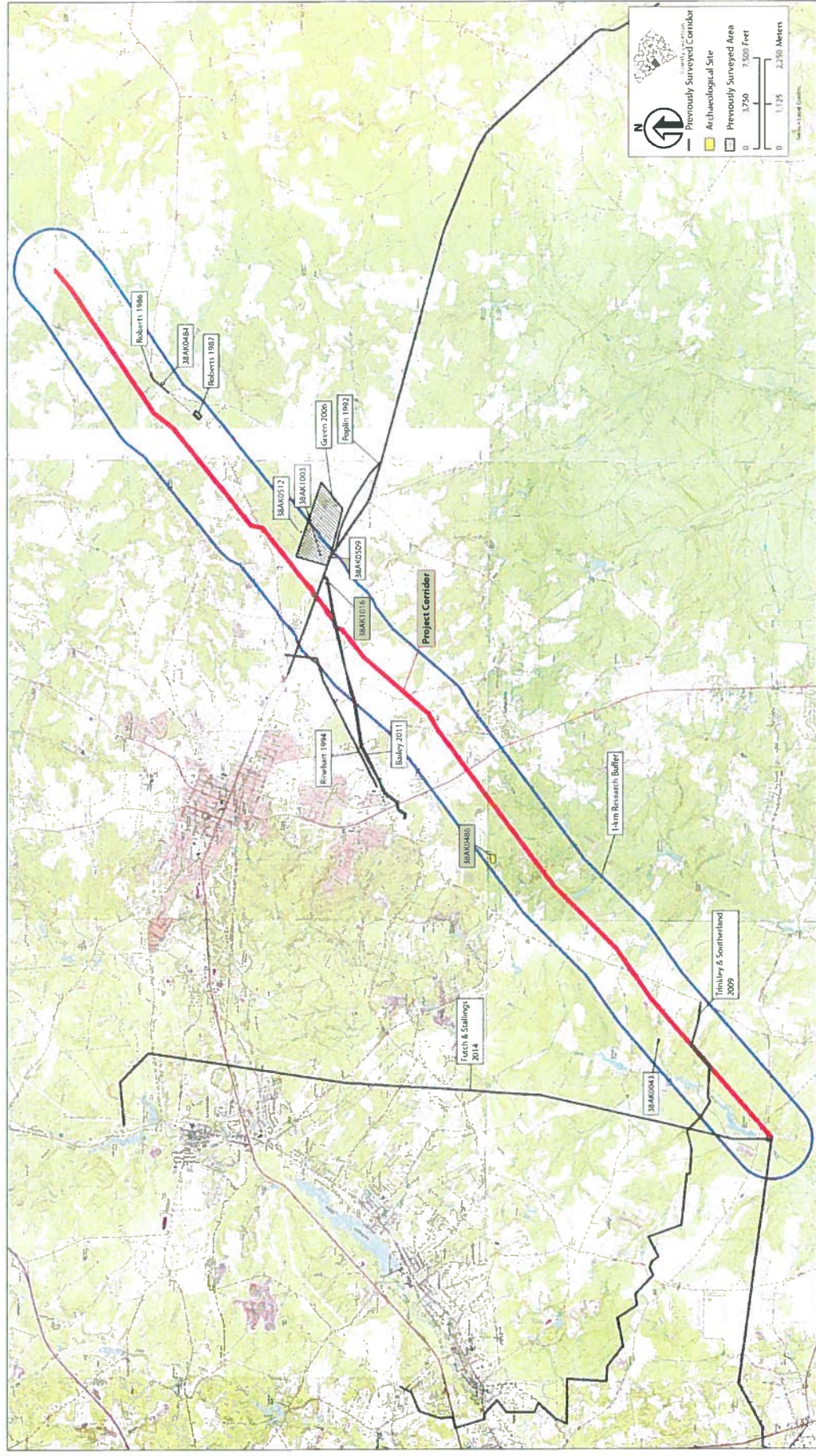
#### 4.1.2 Previously Recorded Cultural Resources Surveys

Eight previous cultural resources surveys were conducted partially within the project corridor and within a one-km radius of the project corridor. Roberts (1986) conducted an archaeological survey of South Carolina State Route 302/4 bridge replacement over Shaw's Creek and identified one archaeological site, 38AK0484, discussed above. Roberts (1987) conducted an archaeological survey within one km of the project corridor for the SC Route 302/4 bridge replacement borrow pit and did not identify any archaeological resources. Poplin's 1992 architectural survey of U.S. Highway 78 from Aiken to Elko bisects the current project corridor but did not identify any architectural resources within the one-km research buffer. Reinhart (1994) conducted an intensive survey of the proposed SC 302 widening and recoded four new archaeological sites, none of which are within one km of the current project tract. An intensive cultural resources survey conducted by Trinkley and Southerland (2009) for the Silver Bluff-North Augusta Transmission Line connects to the transmission corridor at the southwestern end of the current project corridor and did not identify any archaeological resources. Green (2006) conducted a cultural resources survey of 320 acres, adjacent to U.S. Highway 78 and within one km of the current project corridor, during which they identified seven archaeological sites. One of these sites, 38AK0512, is within one km of project corridor.

Brockington conducted a cultural resource survey for the Line 1 Replacement Project, a natural gas pipeline, that bisects the current project corridor on the south side of U.S. Highway 78 (Bailey 2011). Bailey's (2011) survey identified one archaeological site, 38AK1016, within one km of the project corridor. Finally, Brockington conducted an archaeological resources survey of the 28.3-km Urquhart-Graniteville Transmission Line Corridor that connects to the current project corridor at the southern terminus (Futch and Stallings 2014). Futch and Stallings (2014) identified four archaeological sites, none of which are within one km of the current project corridor. Table 4.2 presents brief descriptions of the previous cultural resources investigations; their locations are detailed on Figure 4.1.

## 4.2 Environmental Profile of the Corridor

The 28.9 km project corridor and new ROW are located in the Sandhills region of South Carolina between the Fall Line and the Interior Coastal Plane. The southwest terminus of the corridor falls within the Savannah River Valley before crossing Silver Bluff into the Edisto River drainage in the northeast where the corridor crosses Shaw's Creek. The current landscape is characterized by rolling hills with sandy soils that have eroded in some areas due to being exposed within the cleared corridor. Past and present agriculture activities also contribute to soil deflation and disturbance. Other areas of the project corridor are actively developed or being used for horse related activities. These activity areas tend to be fenced in and have a thin layer of short grass on top of the remaining top soil. Modern development such as roads, utilities, substations, shopping centers, and houses have covered much of the project corridor. Figures 4.2 to 4.12 show typical views along the corridor.



**Figure 4.1** Location of all previous surveys and previously recorded archaeological sites within the one-km project buffer.

Table 4.2 List of all previous surveys within the one-km radius of the project buffer.

Date	Type	Agency	Author (Consultant)	Survey Name
1986	Intensive	DOT	Roberts (DOT)	Archeological survey of SC Rt. 302/4 bridge replacement
1987	Intensive	DOT	Roberts (DOT)	Archeological Survey of SC 302/4 Shaw's Ck. Borrow Pit
1992	Intensive	DOT	Poplin (Brockington)	Architectural Survey for US Highway 78 Improvements, Aiken to Elko
1994	Intensive	DOT	Reinhart (DOT)	An Intensive Survey of the Proposed SC 302 Widening
2009	Intensive	FERC	Trinkley and Southerland (Chicora)	Cultural Resources Survey of the Silver Bluff-North Augusta 115kV Transmission Line
2006	Intensive	COE	Green (S&ME)	Cultural Resources Literature Review and Reconnaissance Survey of 320 Acres at the Project Gas Site in Aiken County, South Carolina
2011	Reconnaissance	FERC	Bailey (Brockington)	Cultural Resources Survey of the Line 1 Replacement Project
2014	Intensive	Due Diligence	Futch and Stallings (Brockington)	A Phase I Archaeological Resources Survey of the 17.6-Mile Urquhart-Graniteville Transmission Line Corridor





Figure 4.2 A cotton field within the corridor, facing southwest.



Figure 4.3 Railroad crossing the corridor parallel to the Charleston Highway, facing east.



Figure 4.4 A gravel road and utility company storage lot, facing northeast.



Figure 4.5 Horses and fence lines within the project corridor, facing north.





Figure 4.6 Utilities and erosion along the west boundary of the project corridor, facing southwest.



Figure 4.7 View of a golf course in a portion of the project corridor, facing northeast.



**Figure 4.8** View of the northeast terminus of the project corridor, facing northeast.



**Figure 4.9** View of the Toolebeck Transmission Substation, facing southwest.





**Figure 4.10** View of the shopping center located within the project corridor, facing southwest.



**Figure 4.11** Paved parking lots in the shopping center, facing southwest.



Figure 4.12 View of residential development adjacent to the project corridor, facing southwest.

### 4.3 Archaeological Survey Results

Brockington archaeologists planned 1,747 shovel tests within the project corridor. This number includes those tests that could not be excavated due to extreme slope, standing water, or modern development such as paved surfaces. Notably, the transmission line corridor has been maintained for many years over a hilly terrain, which has led to a loss of topsoil and pronounced erosion in some portions of the project corridor. In these eroded and deflated areas, 7.5YR 4/6 strong brown clay or 10YR 6/4 light yellowish-brown sandy clay subsoils were present at the surface.

Our field investigations identified one archaeological resource within the project corridor. Isolate 1 is a historic scatter located within the existing ROW and is recommended not eligible for inclusion on the NRHP. No additional archaeological management considerations are warranted for this project.

#### Isolate 1

**UTM Zone (NAD27):** 17, E429891/ N3703962

**Site Type:** Historic artifact scatter

**Cultural Affiliation:** Early Nineteenth to Mid-Twentieth Century

**Elevation:** 128 m (420 ft) amsl

**Nearest Water Source:** Unnamed Tributary of Hollow Creek

**Dimensions:** 10 m by 10 m

**NRHP Eligibility Recommendation:** Not Eligible

Isolate 1 consists of four fragments from one Yellowware/Rockingham-like glazed hollowware vessel. The artifacts were found on the surface and cross mend together. This isolated find is located on the east half of the existing ROW along a dirt road that runs adjacent to open horse pasture (Figure 4.13 and 4.14). These were the only artifacts identified within 30 m at this location and appear to have been redeposited which classifies this resource as an isolated find based on current South Carolina Standards and Guidelines for Archaeological Investigations (COSCPA 2005). A total of seven delineation shovel tests were excavated at 10-m intervals, all of which were negative. The parallel survey transect on the west half of the project corridor was also negative for artifacts in the location. Figure 4.15 shows the location of the Isolate 1 within the project corridor. Figure 4.16 shows a map of the shovel tests excavated at Isolate 1.

#### 4.4 Summary and Management Recommendations

Between September 2 and October 18, 2019, Brockington and Associates, Inc. (Brockington) conducted a Phase I archaeological resources survey of the Toolebeck-Aiken 230 kV Tie, a portion of the Graniteville #2-Toolebeck 230 kV, the Toolebeck-South Augusta 230 kV Tie, and associated facilities located in Aiken County, South Carolina. The investigation consisted of an archaeological survey of 29 km within an existing transmission corridor and two new ROW additions. The ROW additions consisted of a four-acre tract at the southern end of the project corridor and a 660 m corridor around the north end of the Toolebeck Transmission Substation. Activities associated with the proposed development within the existing transmission line corridor will directly impact soils that will be excavated and filled at select locations to place new structures. Additional impacts include the movement of heavy machinery in the project corridor.

Background research and archaeological resources survey were used to identify potentially significant archaeological resources within the project's APE. Background research conducted on ArchSite 2.0 identified no eligible or listed NRHP properties located within the corridor; those NRHP-eligible resources lying within the one-km research buffer will not be directly or indirectly impacted by proposed improvements within the existing transmission line corridor.

Brockington conducted an archaeological survey within the APE of the project corridor. The survey included systematic visual reconnaissance and 30-m interval shovel testing. The field survey identified that most of the project corridor has been severely disturbed by soil erosion and recent development. Road crossings, housing developments, horse related activity areas, a golf course, and a shopping center are all present along the corridor within the APE. Some areas of the corridor are also situated in low-lying drainages with hydric soils. These conditions are not optimal for intact archaeological sites. Our field investigations identified one archaeological resource within the project corridor. Isolate 1 is a historic artifact scatter that is recommended not eligible for inclusion on the NRHP. No additional archaeological management considerations are warranted for this project.



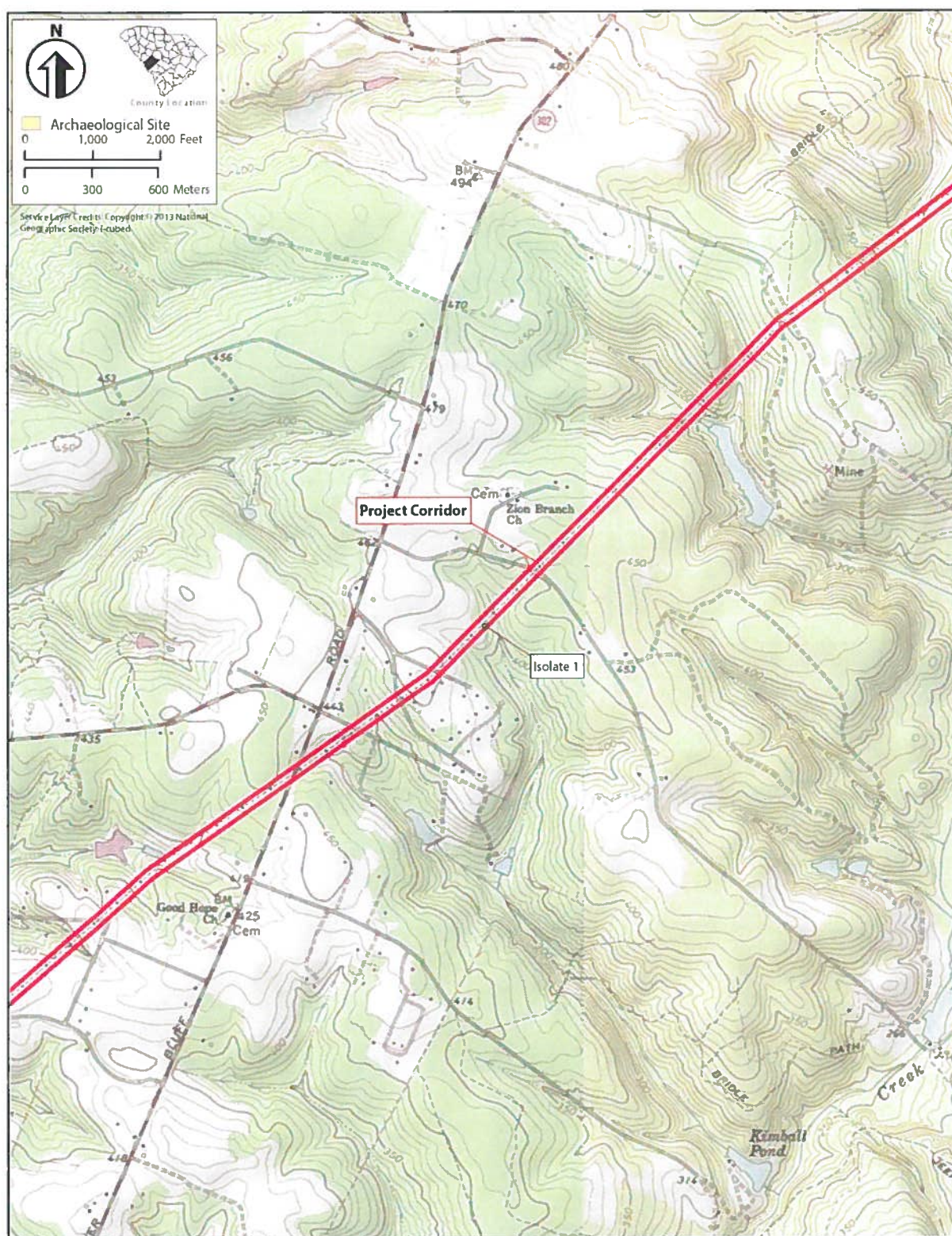


Figure 4.13 View of Isolate 1, looking southwest along the corridor and fenced off horse pasture.



Figure 4.14 View of Isolate 1, looking northeast.





**Figure 4.15** Map showing the location of Isolate 1 within the project corridor on the United States Geological Survey (USGS) Aiken, Graniteville, Oakwood, Windsor, Hollow Creek, and New Ellenton, SC topographic maps (1980, 1980, 1961, 1989, 1989, 1989).



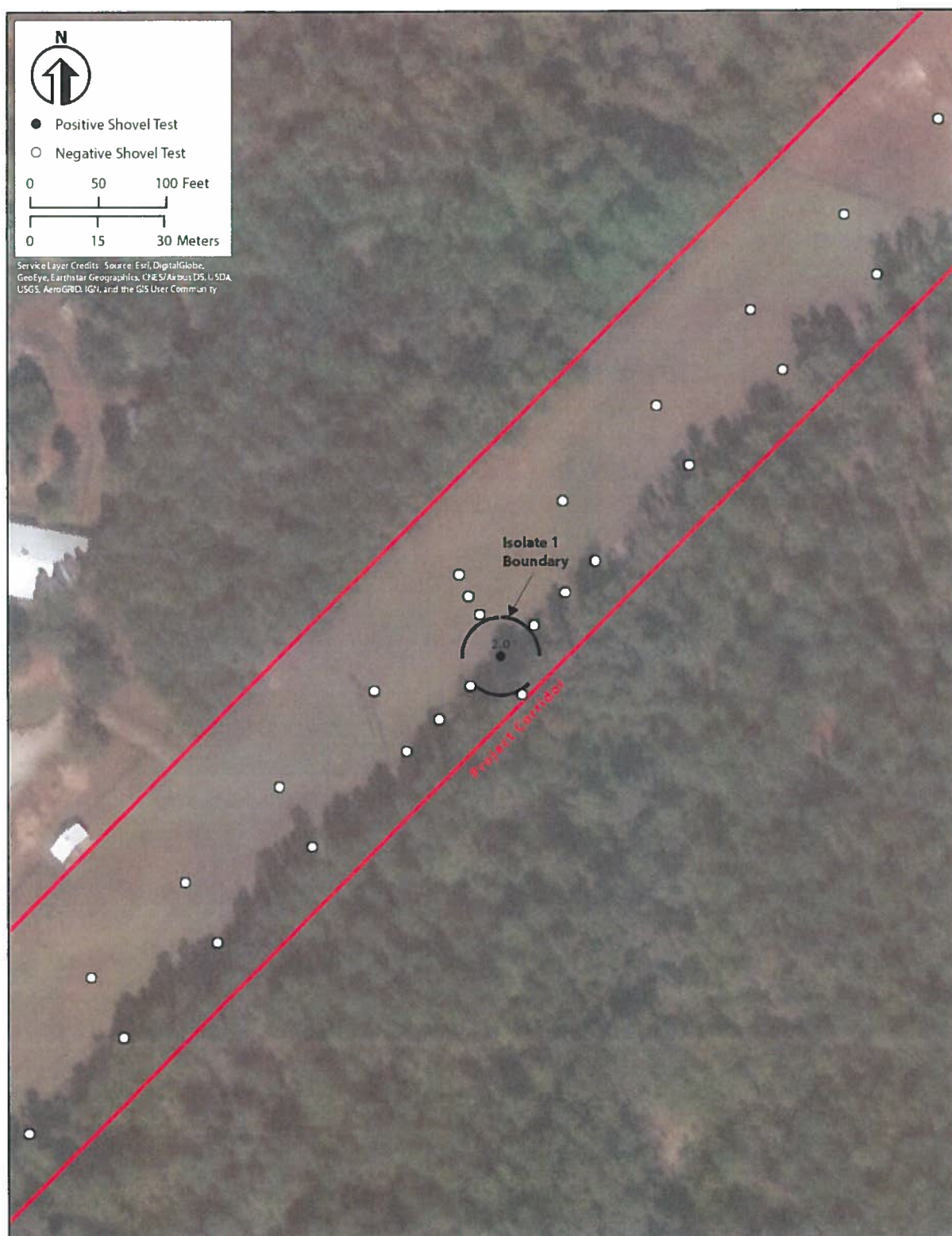


Figure 4.16 Aerial map of the shovel tests excavated at Isolate 1.